AC. 195

AM

DUPLICATE
ARMY MEDICAL LIBRARY

SCHOOL OF TROPICAL MEDICINE
LIBRARY
1961

COLONY OF SEYCHELLES.

ANNUAL REPORT

OF THE

MEDICAL AND HEALTH

DEPARTMENT

FOR THE YEAR

1949.

Printed by the Head Printer,
At the Government Printing Office
Victoria, Mahé—Seychelles.

WELLCOME INSTITUTE
+
Arm Kup
WA28
.LS5
S51
1949
22501399769

COLONY OF SEYCHELLES.

ANNUAL REPORT

OF THE

MEDICAL AND HEALTH

DEPARTMENT

FOR THE YEAR

1949.

Printed by the Head Printer,
At the Government Printing Office
Victoria, Mahé—Seychelles.

1. Administration.

A. (i) STAFF.

1. The Establishment of the Senior Staff recruited from overseas remains the same as 1948, namely :—

1. One Senior Medical Officer,
2. Six Medical Officers, one of whom may be regarded as a leave-relief.
3. One Senior Health Inspectos,
4. One Superintendent of the Leprosy Hospital Curieuse Island,
5. One Matron,
6. Four Religious Nursing Sisters,
7. One Religious Nursing Sister for tutoring duties.

2. Dr. C. H. Todd resigned his appointment on 18th March, 1949.

3. Dr. R. M. d'Offay proceeded on leave to England prior to termination of appointment on 21st June, 1949.

4. Dr. K. K. Kapadia replaced Dr. R. M. d'Offay as Medical Officer in Charge of the Praslin and La Digue areas on 13th June, 1949.

5. Dr. E. Christianson returned from leave on 19th January, 1949.

6. Dr. P. M. Joseph returned from leave on 2nd July, 1949.

7. Miss A. E. Goffe, S. R. N., acted as Sister Tutor from 1st January, 1949 till 25th February, 1949, her duties being taken over by Mrs. H. J. Webster, S. R. N., C. M. B., on 1st March, 1949.

8. Sister Rosalie Fearon was withdrawn by the Mission on 8th June, 1949, and returned to Europe.

2. Legislation.

9. The following Legislation came into force during the year :—

G. N. 14/1949 — Ordinance No. 34 of 1948 — An Ordinance to amend the Buildings Ordinance No. 18 of 1902.

G. N. 15/1949 — Ordinance No. 35 of 1948 — An Ordinance to amend the Dangerous Drugs Ordinance No. 26 of 1935.

G. N. 16/1949 — Ordinance No. 36 of 1948 — An Ordinance to amend the Importation of Animals Ordinance No. 9 of 1929.

G. N. 81/1949 — The Ste. Anne (Infected Area) Regulations, 1946 (Revocation).

G. N. 82/1949 — Tariff Charges for Medical Attention.

G. N. 89/1949 — Proclamation No. 4 of 1949, the declare the Island of Mahe an infected area, under the Importation of Animals Ordinance, No. 9 of 1929.

G. N. 90/1949 — Prohibition of movement of Animals (No. 1) Regulations, 1949.

G. N. 206/1949 — Proclamation No. 7 of 1949, to declare the Islands of Praslin, Cerfs and St. Anne, infected areas.

G. N. 213/1949 — Prohibition of movement of Animals (No. 2) Regulations 1949.

G. N. 246/1949 — The Hospitals and Dispensaries Regulations, 1949.

G. N. 334/1949 — The Building Regulations, 1949.

G. N. 350/1949 — Prohibition of movement of Animals (No. 3) Regulations, 1949.

G. N. 391/1949 — The Praslin Slaughter House byelaws, 1949.

G. N. 419/1949 — Modification to the Tariff Charges. The Hospitals and Dispensaries Ordinance 1899.

3. Finance.

10. Comparative figures of Revenue and Expenditure for the years 1948 and 1949 were :—

	1948	1949
Revenue	Rs. 43,499	Rs. 46,704
Estimated Expenditure	327,415	425,956
Actual Expenditure	283,917	392,123
Total Expenditure for the Colony	3,038,787	4,025,269

4. Medical Stores and Equipment.

11. Certain non-expendable equipment ordered before 1948 was delivered during the year. Other orders placed during 1948 and 1949 have come to hand satisfactorily, and having regard to transport difficulties, the Crown Agents have greatly helped by despatching early in the year medicines and drugs ordered in January, 1949.

12. The Right Honourable the Secretary of State for the Colonies approved the closing of the unallocated stores account and this was effected as from 1st January, thereby greatly simplifying the work in the medical stores. This benefit was to some extent offset in its anticipated effect by the unfortunate circumstances of ill-health necessitating no less than five changes in Storekeeper. The book-keeping is now, however, being put in order.

13. The "Chemist's Shop" at the Government Dispensary, Victoria, has been closed and all sales are now made on the prescription of a doctor, only. There was a certain amount of complaint by the public at the withdrawal of the right of of being able to buy its patent medicines from the "shop". The privilege was, therefore, gradually withdrawn over the first six months of the year. No hardship has, in fact, been occasioned, for a check revealed that prices were, on the average, these charged by local merchants.

II. PUBLIC HEALTH.

1. General Remarks.

14. The system of case registration, introduced in 1948, has allowed of a much more accurate estimate of the state of the public health and the individual illnesses which beset it, than heretofore.

There are certain imperfections in the system, which will require future correction, but from this point onwards it should be possible to study trends. It should be noted that unlike those of larger colonial territories these returns are fairly complete, for nearly all the sickness of these islands is now within easy reach of medical aid and that with the exception of two private practitioners and half a dozen midwives all the medical aid of the Colony is Government and therefore registered in its records.

15. This year an all-time record of out-patient registration marks what it is believed to be the succesful termination of an endeavour to wrest away from one section of the community the monopoly of the available medical facilities and to distribute them more equitably. The medical services have reached to the poorer sections of the community. Large numbers of minor ailments hove been sifted but in this sifting process many have received attention to serious illness which hitherto had to wait upon the convenience of a small group. That small group is still adequately provided for; some even going so far as to admit that in-patient treatment has improved.

16. 45,531 Out-Patients attendance (of these 18,474 were first attendances) are recorded for the year. This represents 9,355 (20%) more than 1948; and 29,412 more than 1947 — though admittedly registration was incomplete in 1947. In-Patients totalled 3,525. Appendix I shows the distribution of the figures.

17. A beginning was made this year to examine medically all persons on the permanent establishment of government service. All new entrants were similarly examined and findings were committed to a suitably devised form so that a permanent record exists. Minor defects were dealt with to the benefit of the sufferer; and Government, by the elimination at the outset, does not have to bear the responsibility of receiving persons with a latent illness. There were over 260 such examinations for the year.

2. General Diseases.

18. *Measles :* A mild outbreak of measles occurred at the beginning of the year. There were 310 confirmed cases and 234 cases reported by Teachers, etc., and regarded as unconfirmed; of these totals 113 were admitted to Hospital and there were four deaths all of which bore the diagnosis of "measles and gastro-enteritis". Appendix II shows the form of this epidemic.

19. *Tuberculosis :* A slight decrease in Hospital admissions and deaths is probably not significant. There is, however, an appreciable increase in diagnosed pulmonary tuberculosis in the out-patients departments. It is impossible to say, on one year's findings, whether this, in fact, represents a real spread of the disease. There were 76 pulmonary and 9 non-pulmonary tuberculosis registrations as first attendances at out-patient clinics, 27 pulmonary and 10 non-pulmonary cases admitted to Hospitals and there were 9 deaths from both forms (8 pulmonary). Total deaths registered in the Colony were.

Males appear to be affected more often in both types of the disease.

20. *Diarrhoea, enteritis, dysentery :* Figures reflect the poor sanitary conditions of the Colony. The chronic forms coupled with helminthiasis group are responsible for a vast amount of ill-health and one is frequently impressed in the

out-door clinics with the obvious fact that man-hours are being lost to employer and employee alike. Those that find their way to a clinic must have spent months of utter weariness making only a pretence to earn the small wage offered them and even for this, unable to give a fair work return.

21. Diarrhoea, enteritis and dysentery have always been said to be worse in the second quarter of the year, the driest time and figures shown in Appendix III confirm this, at least in 1949.

22. There is no means of saying whether the 1864 out-patients 400 in-patients and 26 deaths at government institutions represent a betterment of the situation. The only figures which suggest that some overall improvement does exist, are those for admissions to Victoria Hospital which show that the improvement in the amoebic dysentery complex established in 1948 has been maintained throughout the year. (338 admissions 1949) against 362 in 1948.

23. *Helminthiasis :* 872 out-patients, 182 in-patients and six deaths in government institutions are a gross understatement of the degree of infestation by helminths.

24. On certain government estates situated on the sandy coastal littoral, a survey (343 observations) revealed an average hookworm infestation of 56% and round worm rate of 63%. One of these estates gave figures of over 85% for both types of worms.

In another survey which included labourers from estates in the mountainous parts a lesser incidence or 46% for hookworm and 35% for round worm. Entamoeba hystolitica and giardia cysts were found in 3% and 12% of cases respectively.

It must be remembered that these are conservative figures resulting from one stool examination in each case, only. Gross anaemia is often seen with oedema, palpitation and breatnlessness.

25. Routine examination of in-patients in the Maternity Department of the Seychelles Hospital gave figures of 55% and 35% for round worm and hookworm infestation rates respectively.

26. Elsewhere it will be seen that Medical Officers visiting schools assess, clinically, the infestation rate to be over 40%.

27. The reputation the labouring classes of this Colony have for being lazy must surely, in part, at least, be explained by this vast worm population parasitic upon them. There seems to be only one answer to this and that is to educate the employing class to the idea that it is to their own advantage to ensure that their employees are healthy and able to give them fair return for their wages.

28. *Venereal Disease :* If the problem of how to deal with syphilis in the colony is not yet resolved, at least a fairly clear picture of its magnitude now exists. Modest but significant figures would indicate that between one fifth and one sixth of the Colony is suffering from syphilis. An estimate of the incidence of gonorrhoea is more confused. For both causes the total attendances were 13,167.

A. Syphilis

(1) Examination of sera

29. (a) *Unselected labourers* drawn from town, rural and island population were examined by means of Kahn Test. There were 634 observations (448 M., 186 F.) in the group, whose average age was 35.0 years (M. 34.1., F. 37.0 years). For both sexes combined the positivity to the test was 31.9%, the female rate being higher (36'0%) then the male rate (30.1%) and no doubt explained by the fact that the female group had been at risk nearly three years longer than the male group.

Table I.

Age in years	Male		Female	
	Total Examined	% †ve K. R.	Total Examined	% †ve K. R.
—20	88	10.2%	21	33.3%
20—30	126	25.8%	43	30.2%
30—40	89	44.9%	47	40.4%
40—50	61	43.3%	31	29.0%
50†	84	30.8%	44	43.2%

(b) *Patients at the Mental Hospital* (30 observations) were positive to the test in 27% of cases.

(c) *Inmates in a Home for the Aged* (70 observations) were found to be K. R. positive in 36% of cases, females being more often so (50%) than males (33%).

From these observations it would appear reasonable to accept something over 30% positivity for the adult male and female labouring section of the community. From reference to the 1947 Census, about 17,500 persons fall into this group, so that in absolute numbers there would be about 5,250 cases.

(d) A smaller groups of 167 observations (M. 106, F. 61) made up of candidates for, and persons already on, the permanent establishment (junior) of Government service, was taken to represent the "middle classes" of the Colony. This group was 12% positive as a whole, males (14.2%) being more frequently positive than females (9.8%). But it should be noted that the average age of this group it abour 9 years younger than that comprising labourers. Not having been at risk so long it would probably be fairer to project a 15% rate (rather than 12%) on to the class which the sample represents.

From the 1947 census it would appear that not more than 4,000 adult persons come within the group so that 600 might fairly represent the syphilitic portion.

30. (e) No estimate of the positivity in children is available, except perhaps that 24 new cases of congenital syphilis were registered during the year ; but it can fairly be assumed that from the estimated 13,500 persons under 17½ years of age in the colony a small; but significant, fraction should be added, and a total of 6,000 cases for the whole population of 35,000 should not be far wide of the mark.

31. (f) *Hospital records* : For the whole Colony there were 670 first attendances recorded. These were divided as in table II :—

Table II.

Type	Sex		Total	Grand Total
Primary & Secondary	Male Female	73 66	139	
Tertiary	Male Female	257 250	507	670
Congenital	Male Female	17 7		

32. B. Gonorrhoea : 671 first attendances were recorded in the various clinics. Table III shows how these were distributed :—

Table III.

Type	Sex		Total	Grand Total
Acute	Male Female	402 131	533	671
Chronic	Male Female	105 33	138	

In the ante-natal clinic and the maternity wards of the Seychelles Hospital where smears are taken as a routine, gram negative intracellular diplococci were found in 47% and 33% of cases respectively.

33. The appointment of a health visitor in the latter part of the year showed immediate results ; within two months of her assumption of duty, many old cases resumed treatment and many new cases were induced to come to the Hospital for treatment.

34. *Bronchitis and Pneumonia* (all types) are set out in Appendix IV which shows the month by month registrations.

35. *Other common infectious diseases :* There were eight cases of varicella and eight of diphtheria. each with with no deaths.

3. Dental Health

36. The Dental Officer reports the following works done during the year :—

(a) School dental service :

Extractions		Fillings	Scalings
Deciduous teeth	Permanent teeth		
859	102	280	44

(b) Public Dental services :

Extractions	
Paupers	1621
Government patients	787
Hospital patients	172
Police	12
Prisoners	46
	2,638

4. Dietetics and Nutrition

37. Small modifications were made to certain of the dietary scales prepared in 1948, which on the whole have worked very satisfactorily. The scale for outlying island labour was recast after several meetings between Government and Island owners. Two groups of persons were recognised for this purpose; namely active adult male labourers and a group of "others" comprising females, children and old folk.

38. A heights and weights survey was made of the entire school population. 3685 observations (M. 1794), F. 1886) went to the preparation of a norm of growth, which should later be useful in any nutritional survey which may be undertaken. Children of overseas personnel are excluded from the numbers mentioned above. Appendix V shows the means and standard deviations from these means for each age group.

39. In 1948 the opinion was expressed that there was very little malnutrition in the Colony, only 8 in-patient and 4 out-patient cases being recorded. In 1949 however with the registration system now working properly on a colony-wide basis instead of being confined to Victoria, and as a result of establishing clinics in the remote parts of the island of Mahe it becomes necessary to modify that opinion

40. This year there were assigned to "malnutrition" 130 out-patient and 19 in-patient registrations with 4 deaths. 114 of these out-patient cases came from South Mahe and it is in this area that worm infestation is at its worst. As far as is known there is no appreciable deterioration in the economics of the labourer to account for these increases and one is forces to the view that better medical supervision and better system of registration has revealed a latent probiem.

41. Arrangements have been made for all new cases to be reported immediately to the Health Office so that investigation can be made and a report will be sent as a routine measure to the Labour and Welfare Officer for it is still believed that such malnutrition as exists is mainly due to helminth infestation (resulting from poor sanitation of estates) and neglect of fatherless children.

42. It is a matter of interest that female children fare much more badly than do males. This is in keeping with local tradition that male children are better cared for than female children.

5. Vital Statistics.

43. The population of this Colony on the 30th of June 1949, when calculated by the method of Arithmetic progression from the 1947 Census figure was 35,631 (a) but when estimated by noting the increase during one year due to births, deaths, emigration and immigration and adding this figure to the population similarly calculated for the 30th June, 1948, the population on the 30th June was 35,348 (b).

44. *Births :* 1,035 births were registered (521 males, 514 females) which when calcnlated against (b) above results in a birth rate of 29.2.

45. *Deaths :* 426 deaths were recorded giving a death rate when calculated against (b) above of 12.1.

46. *Infant Mortality :* There were 73 deaths among children up to one year of age, resulting of infant mortality of 70.53.

48. Systematic courses of instruction were given to Health Inspectors throughout the year.

50. A public health museum was begun during the year. Models depicting simple sanitary appliances and structures were made by a health inspector who showed a great aptitude for such work. Posters were drawn dealing with fly nuisance and prevention, vital statistics etc., and photographs with legends demonstrate the subject of leprosy. An inner and private section of the museum is arranged to demonstrate venereal disease. This has been used for lectures to selected members of the French speaking public and for nurses in training. A personal letter is sent to about a dozen members of the Local upper classes each week and by appointment a talk is given to the group with the object firstly of giving a clear idea of the course and treatment of syphilis and gonorrhoea and then showing the magnitude of the problem in the Seychelles. Finally an appeal is made to the members of the group to use what influence they can to ensure that those less literate in their employ come for, and, more especially, continue with their treatment.

This has been sympathetically received by such members of the public as have visited the museum.

51. A great deal remains to be done in order to make the museum attractive but a start has been made and already several more thinking land-owners have taken down precise details of sanitary stuctures they wish to instal.

52. Work directed at the improvement of water supplies went forward during the year. Construction on the Niole Water Works will, it is hoped, be complete in 1951 while the Rochon barrage and reservoir should be in operation early next year.

53. *Inspections :* 11,636 house-inspections were made by the Sanitary Staff during the year and 1,685 inspections were made for the abatement of nuisances. Nuisance notices were served in 118 cases. There were no prosecutions during the year.

54. *Anti-Mosquito work :* Mosquito searchers and health inspectors made five thousand eight hundred and sixty-two inspections for breeding places. Oiling gangs attended to drains, low-lying areas, holes and pools. The Aedes index for the year was 2.42%. A good atuempt has been made to deal with the numerous mosquito-breeding places in the vicinity of the Hospital where they have been difficult to control owing to the thick vegetation and lack of surface drains. Some good progress has been made in clearing, levelling and the laying of masonry drains.

55. *Meat and food Inspections :* Systematic inspections were carried out in the case of food shops, restaurents and bake-houses. The following number of animals were slaughtered and paesed fit for consumption : cattle 156, pigs 756, turtles 223.

School inspections : All schools were periodically visited by inspectors. Class rooms were unsatisfactory in five cases and the grounds were unsuitable in two cases. There were four instances of detective structures and seven of the schools are regarded as showing poor maintenance of latrines.

56. *Port Health :* 61 ships representing 188,187 gross tons were given pratique. A sanitary inspector stationed on beats ex Indla ensured that all transit paesengers were in possession of valid certificates of vaccination against small pox.

57. *Vaccination :* was available at all medical institutions during the year and in addition all schools in Victoria were vaccinated in a campaign. A total of 5.585 vaccinations for the year were performed.

58. A compost factory was installed at Union Vala for the conversion of night-soil and town refuse into a useful and safe manure. The "Idore" process was employed and three quarters of the night-soil of the town of Victoria is now being dealt with satisfactorily by this method.

59. A slaughter house was completed at Grand'Anse Praslin and at Baie St. Anne, Praslin and La Digue similar structures have been commenced. The "Double Sealed Vault" type of public latrine has been erected at Anse Kerlan, Petite Cour, Baie St. Anne and Grand'Anse, Praslin and at Gordon Square, Victoria.

60. A very real rat nuisance at the Long Pier has been overcome with the erection of modern rat-proof godowns combined with trapping and poisoning.

61. A good start was made to relieve the housing situation in the town. A village settlement at Pointe Conan, about two miles from Victoria was completed and provides accomodation for 12 families and further settlements are planned.

62. Rural hygiene was attended to in Praslin and La Digue by a Health Inspector stationed at Baie St. Anne. He works in harmony with the first elected local board to be established in the Colony. Rnral areas in Mahe were periodically visited by inspectors based on Victoria.

63. Elsewhere, mention has been made of the very useful work of a health inspector stationed for three months in the south of the Island where he made a survey of the helminth infestation and gave advice and treatment for this complaint.

VII. Maternity and Child Welfare.

64. For the whole colony 462 of the total registered births (1,035) took place in Hospitals. The majority of the former eccured in the Seychelles Hospital. The following table indicates the work relating to pregnancy and parturition at the several centres in the Colony.

Table V.

	Victoria Hospital	Bay St. Anne Praslin	Grand'Anse Praslin	La Digue
Births	331	88	—	43
Still births	14	4	—	1
Complication of pregnancy	50	1	—	1
Toxaemis of pregnancy	5	—	—	—
Complicafions of labour	72	7	—	2
Abortions	18	6	—	7
Complications of puerperium	9	—	—	—
Ante-Natal first attendances	277	37	81	44
Subsequent attendances	580	87	73	77

65. Although admissions to the Maternity Department of the Seychelles Hospitai were equal in numbers of those of 1948, there was a fall in the actual number of deliveries.

66. Admissions to the hospital were 472 (471 in 1948) with 323 deliveries, representing 331 births of which 317 were live-births (14 still-births). There were 6 infant deaths.

67. An analysis of the 42 abnormal cases at the Seychelles Hospital is as follows :—

Ferceps deliveries	17
Caesarian section	6
Breech presentation	11
Footling	4
Persistant-occipito-posterior	4

68. The following is a record of events of parturition and pregnancy occuring in the same hospital :

Retained placenta	3
Pre-Eclampsia	9
Eclampsia	1
Ante-partem haemorrhage	3
Post-parteum haemorrhage	21
placenta prævia	2
Ruptured uterus	1

69. Of the 223 Mothers delivered 63 were Kahn positive and it is noted only 157 were married.

70. Other final diagnosis iu the Maternity Department of the Hospital were for :—

Puerperal pyrexia	5
Sick babies	16
False labour	39
Threatened miscarriage	8
Complete abortion	17
Threatened abortion	8
Sick expectant mothers	22
Post-natal repairs	45
Gynacological cases	2
Premature babies	23

71. The ante-natal clinic at the Seychelles Hospital started in 1948 continued to have good attendances. A new antenatal clinic was set up at Grand'Anse, Praslin, in the latter half of the year and it proved to be useful.

VIII. School Medical Care.

72. Meution elsewhere has been made of the weights and height curves prepared during the year.

73. Medical officers visited all schools at least once and examined 3.821 school children representing 85% of the 4,513 children on school rolls (1,824 boys, 1,997 girls). These pupils are catered for in 30 schools in the Colony.

74. Medical officers noted class rooms and premises unsatisfactory, as regards overcrowding and/or construction in six cases. Grounds were regarded as inadequate in three instances. The most frequent compiaint relates to latrines which were noted as of poor construction in seven instances and poorly maintained in six cases. Water supply was lacking in four schools.

75. The following tables compares the findings of medical officers in 1948 and 1949 in their medical examination of school chiidren.

Table V.

	1949 (3821)	1948 (3437)
Intestinal parasites	43.5%	37.5%
Lack of cleanliness and skin disease	19.7%	13.5%
Dental defects	14.2%	20.3%
Anæmia	12.1%	15.2%
Deficient nutrition and under development	8.5%	15.2%
Tonsils and adenoids	8.5%	—
Disease of the respiratory system	1.2%	0.8%
Disease of the circulatory system	0.7%	0.6%
Eye defectt	0.7%	0.8%
Disease of the nervous system	0.1%	—
Other	0.4%	—

III. HOSPITALS AND DISPENSARIES.

1. Nurses Training School.

76. An intensive effort has been made this year to put the training of locaily recruited nurses on a sound basis and in accordance with the principles laid down in the Ruschcliffe Report.

77. As a first step it has been necessary to do away with certain anomalies of designation on the permanent establishment. Such categories as "staff-midwife" and "probationer staff-nurse" were confusing and achieved nothing. Fcur classes of nurse only are now recognised ; "probationer nurse", "probationer dresser", "nurse" (i. e. Registered nurse) and "staff-nurss".

78. An entrant to the nursing service now progresses through his/her sfage of probation to registration and finally after a suitable lapse of time as "nurse" and being chosen for promotion becomes a "staff-nurse. The whole progress through the service normally will take 24 years.

79. Two years ago there were three registered nurses in Government service. At the first annual award of certificatee of registration in December of this year, the number had been increased to fifteen and an additional three midwives had also been registered.

80. The occasion of reorganization of the nursing services has happily fitted in with the implementation of the recommendations of the Salaries Commissioner. Salaries offered, appopriate to the classes mentioned above, are adequate and ensure a resonable recompense to those who wish to make nursing their profession.

81. Formal lectures were given to the probationers in training, following the curricula of the Ruschcliffe Report as far as was possible ; but it was felt that training should be much wider in this particular Colony than these formal classes, for the probationer has in the past been deprived of any sence of belonging to a corporate body, coming as she does from a background completely lacking in tradition of self-discipline, team work and responsibility. Accordingly, basket-ball was organised, with the kind help of several ladies. Girl Guides and teachers were similarly organized by a member of the Education Department. and after initial "tiffs" and "blows" the nurses settled down to learn to play as members of a team is competition with others.

82. From this point onwards the idea of each member regarding herself as a member of a team in both work and play has been assiduously fostered, as the same time the senior staff has done everything in its power to build up a sense of dignity in the minds of members of the service. Probationers have been given a mark designating their year of probation. Nurses and Staff-Nurses are distinguished from probationers and each other by a belt indicating their proper rank.

83. Responsibility has been given to those who are registered ; at first a timid response was noted but by encouragement and backing their decisions when made, in relation to disciplining their juniors acceptance of his responsibility has proved most encouraging (with only one exception).

84. Other aids to the creation of a sense of unity were (1) a film showing the progress of a nurse in training in England (g) a concert given by the nurses and dressers themselves, (3) a ceremony of presentation of certificates of registration and award of prices ; at the last of these an honour board was installed on which for this and succeeding years the name of the best all round graduate will be recorded.

85. It was not possible during the year to introduce legislation setting up nursing and midwifery councils. None the less the selection of entrants, discussion on examination results and award of prizes has been done by an ad hoc committee of the staff generally with the aid or one or more Education Officers. Model legislation is now available for the setting up of the proper councils and it is hoped that such will be introduced during 1950.

86. Training was helped by the use of roneod notes, the use of a film strip projector, silent and sound films, while excursions to medical institutions were also made. Fortnightly reports by senior staff, on the conduct of probationers in the ward, helps to prevent slackness ; and this has further been aided by placing one of (the few) Senior Sisters on night duty.

The Education Department has been most helpful in providing short courses in general Education and in setting examination papers in these subjects.

87. In order to try to attract the right sort of entrant for 1950, the sister tutor visited the Convent several times and spoke to the girls on the ideals of nursing. A composite broadcast kindly helped and compered by an Education Officer and in which the nurses themselves took part aimed at stirring up interest in the profession. Other broadcasts and press notices have been issued but it is regrettable that the response has so far been only fair.

88. It is appropriate here to record thanks to the Hospital Committee who have helped greatly by advice and provision of prices in the forwarding of the training programme.

89. As an overall picture there is not the slightest doubt that the service has improved greatly. Nurses now look and act like persons conscious of their profession.

90. With ths arrival of a full-time Sister Tutor on the permanent establishment there iis every proseect of raising the standard of nursing in the Colony to a degree hitherto held to be impossible. But her work will be retarded as long as the nurses home, now happily under construction uncompleted.

91. It remains only to mention the success which has met the appointment of the class probationer dresser. The Department has been fortunate in securing a good type of young man who has accepted this work with enthusiasm. These pioneers have fully justified the experiment and it is hoped that, as they progress, much responsible work will be taken over by them.

2. The Seychelles Hospital.

92. During the year pressure was gradually brought to bear on the public's attitude of treating the Hospital as an hotel. It was the custom in the past for relatives. nannies or friends to claim (and receive) admission along with the patient. The doctor, and nursing staff found this a great embarassment to the good nursing and medical care of their charges. Accordingly it has been ruled that no one may be admitted with a patient unless it is certified by the doctor in charge of the case that it is necessary to do so in the interest of the patient, e. g., a nursing mother, and this restriction has also been imposed on the public as regards visiting outside proper hours.

93. The effect of these rulings has best been seen in the new Children's Ward which was opened in early June. Hitherto cleanliness and order in this Ward had been very indifferent because numbers of mothers and friends lived, ate, and slept there. No mothers are now admitted except under the provision mentioned above and the ward comparea very favourably with a similar ward in a Hospital at Home.

Among first class patients and public these rulings have been received with much disfavour, nonetheless very much more efficient medical care is now possible.

94. A programme of bringing Hospital (and out-stations) linen up to proper strength was drawn up in 1948 ; during the year this has been completed in large part and at much less cost than was anticipated. It is now unnecessary for any patient to bring linen to hospital with him as was the case hitherto. With the help of the Hospital Committee a good deal of this linen was made up by voluntary work.

95. An Aga Cooker was delivered and installed at the end of the year. It will permit of much more cleanly food preparation and cooking and should entail less cost in supply of fuel.

96. An effort to create a reserve of blood donors met with little response among persons from overseas. Response of local origin was negligible.

97. The children's Ward completed and opened in June contains a six-cot room for second class patients and a room confaining some sixteen cots for third class accomodation. Decorations were kindly provided from funds given by the Girl Guides.

98. A ward to house the chronically bed-ridden was completed and all such patients were withdrawn from the Fiennes Institute where formerly they were admitted under no skilled nursing care.

99. Additional windows were placed in the third class male ward.

100. A kitchen store was completed as an annexe to the Home of the Religious Sisters.

101. A new Store Room laundry was built.

A mortuary with a viewing room attached and which is properly screened is a great improvement on the old and insanitary oue.

102. The Labbratory was divided into individual rooms so as to permit of better work in the future. especially in rslation to bacteriologc.

103. The new sewerage system at the Hospital was completed and functioned satisfactorily throught tbe year.

The tank is so situated as to make possible the connection of neighbouring dwellings. Already several houses have taken advantage of this and it is hoped ultimately to build up a "safe" area of houses with water-borne sewage around the Hospital.

104. A firm order was placed for a self-powered X-Ray plant which will permit of X-Ray work independently of the town supply, normally only available at night time.

105. The Hospitsl dealt with 29,557 out-patient and 2,986 in-patient cases. The latter figure is smaller than for 1948 but is partly explained by eliminating the old practice of counting patients "remaining in" from the previous year as "new admission".

See appendix VI.

Outstation Hospitals and Dispensaries.

106. *Baie St. Anne.* This small hospital dealt with 307 in-patient and 2,285 oua-patient cases, including the maternity and ante-natal cases shown in Table IV. Minor structural alterations were made to the buildings to allow of better supervision of the patients, to improve the side rooms and provide verandah accomodation.

Electric wiring of the Hospital was completed during the year.

107. *La Digue.* Was regularly visited by the medical officer in charge of the Baie St. Anne Hospital. Appendix VI records the work done in the small hospital established there.

108. A new dispensary with nurses quarters attached was completed at Grand'Anse, Praslin, and an ante-natal clinic was commenced there.

109. At Grand'Anse, Mahe, the weekly clinic set up in 1948 proved so popular that it was necessary to make a second visit each week. This and the similar clinics at Takamaka and Bel-Ombre are conducted each week by a visiting nurse and it is felt that a useful purpose is served not only in treating minor ailments but by allowing more medical supervision of the remote areas of the island of Mahe, They have been made possible by the arrival and stationing of a new ambulance at the dispensary with rest beds at Anse Royale. The latter is also in contact with Victoria by means of this ambulance and any serious cases are referred to Victoria for proper nursing or surgical care. Anse Royale was visited three times weekly by a doctor.

110. *The Mental Hospital, Anse Royale.* Failure to procure a suitable site for a new and much needed Asylum has regretfully delayed for another year the projected building of a modern structure. There were 4 admissions, 6 discharges and 7 deaths during 1949. 37 patients remained in hospital at the end of the year and 7 patients were out "on trial" and 3 discharged as cured.

111. *The Central Prisons* were visited regularly by Medical Officers. In 1950, a start will be made on the construction of a new Prison at the Union Vale Estate.

112. *The Fiennes Institute* was relieved of its bed-ridden patients by transfer to a "chronic" ward at the Victoria Hospital. A new "nurse" was given six months training at the Hospital before taking up her station in the Home where she attends to minor ailments under supervision of the medical officer.

Provision of covered ways and other minor altera alterations have improved the lot of the inmates, of which 59 remained at the end of ihe year.

The Leprosy Settlement Curieuse Island.

113. *Patients :* At the beginning of the year there were 51 patients of both sex.

(a) Admission : There have been 11 admissions — 7 male, 4 female, of these 6 entered Curieuse voluntarily from home isolation, the reminder are new cases 4 male and 1 female (2 from Mahe, 3 from Praslin).

(b) Discharges. There have been 6 discharges during ths year 2 female, 4 male.

114. *Deaths :* 2.

115. *Treatment.* Until April, 18th., all patients were having bi-weekly injections of Alepol up to a maximum desage of 20 ccs. each week. On the 18th April, 26 lepromatous cases commenced Sulphetrone therapy; new admissions commenced on arrival. They had all had at least one month's treatment with iron and yeast before commencing. This was stepped up gradually from $1\frac{1}{2}$ grms. a day for 6 days a week to a maximum of 6 grms: daily. With the exception of 5 cases, no severe reactions were noted.

Sulphetrone has caused a great clinical improvement during the 8 months in which it has been used. Open lesions have completely disappered in all cases and in the case of those with large nodular areas, these have diminished to a considerabie extent. It must be pointed out, however, that bacteriologically the same amount of improvement has not taken place although in nearly all cases it is observed that the bacilli are undergoing degeneration. The treatment has, most important of all, gained the complete confidence of all who are having it.

The morale of the patients is increased a hundredfold, they are much fitter and a large number of them are now working satisfactorily in varying capacities. The total amount of Sulphetrone given to each varies between 800 and 900 grs.

116. *Building and Constructions by P. W. D. and Contract :* (i) A new masonry piggery has been completed capable of holding 34 pigs in separate sties together with two larger size for farrowing purposes. These are now partially occupied.

(ii) A derelict buildlng has been completely rebuilt and thatched and is now ready for occupation by a male dresser who will posted on temporary duty to Curieuse from Victoria Hospital, Mahe.

(iii) Some 700 feet of earthern drains in the men's camp have been newly concreted. A great improvement as far as the hvgiene and sanitation is concerned.

(iv) A new double pit latrine has been finished and in use at the women's camp.

(v) The floor of the communal kitchen has been re-cemented.

(vi) A copra mill has been made and enough oil is being produced for consumption by the patients.

(vii) A small pirogue is practically finished and when it is, will be used to provide fish for camp consumption.

117. *Construction by Leper Labour :* A new 250 yard long road has been built and laid over a small hill in place of the existing road which has been destroyed by erosion.

(ii) The large drying sheds for copra have been built adjoining the pirogue shed, these are capable of dfying 1009 nuts at a time.

(iii) A 40 ft. long sluice with two sluice gates has been made and now affords complete drainage to the largest of the swamps.

(iv) A roof for the copra mill is at the moment under construction.

(v) Large areas of both hillside land and swamp land have been cleared and under cultivation. A crop of maize has been sown and large quantities of fruit trees, grasses. etc., have been planted.

N. B. It must be noticed that all labouring work required by P. W. D. and contractors have been carried out by the male lepers.

118. *Amenities.* The amenities provided during the last year included :

1. An H. M. V. Radio with two 6 volt batteries.

2. A charging plant in order that batteries on Curieuse may be charged on the spot; this is held by the Superintendent.

3. A shop has been opened and was managad by one of the lepers (this patlent is now cured and will be employed on Curieuse to carry on the shop and other duties). The patients are all paid for their work in metal coin and they make any purchases they wish at the shop. Although prices are lower than those of neighbouring islands, it has been possible during the year to show a small profit of Rs. 450. This profiit was shared among all patients as a Xmas bonus.

4. The Pastor of the Seventh Day Adventist Mission in the Seychelles has voluntarily visited the Settlement to give magic lantern performances, both religious and of general interest, this has been much appreciated.

229. In eonclusion, it must be reported that the atmospher of Curieuse has completely altered. The morale all concerned is high, work is carried out willingly and cheerfully and it is hoped that in the reasonably future, the settlement may become self-sufficient in several items.

APPENDIX I.

Classification of out-Patients (first attendances) In-Patients and Deaths at Government Medical Establishments.

DISEASE	OUT-PATIENTS			IN-PATIENTS			DEATHS		
	M	F	Total	M	F	Total	M	F	Total
Typhoid fever ...	—	—	—	—	—	—	—	—	—
Paratyphoid fever ...	—	—	—	—	—	—	—	—	—
Meningitis (non epidemic) ...	—	—	—	—	1	1	—	1	1
Scarlet fever ...	—	—	—	—	—	—	—	—	—
Whooping Cough ...	—	—	—	—	—	—	—	—	—
Diphtheria ...	—	—	—	6	2	8	—	—	—
Tetanus ...	—	1	1	4	3	7	1	—	1
Tuberculosis Pulmonary ...	43	33	76	22	5	27	6	2	8
,, Non-pulmonary ...	6	3	9	6	4	10	1	—	1
Leprosy									
Diarrhoea & Enteristis ...	750	567	1,317	84	86	170	6	5	11
Dysentery (bacillary) ...	7	5	12	13	12	25	3	3	6
(amoebic) ...	193	173	366	81	46	127	5	2	7
(other) ...	68	74	142	46	22	68	1	1	2
(unspecified) ...	17	10	27	7	3	10	—	—	—
Malaria (B. T.) ...	1	—	1	4	—	4	—	—	—
(S. T.) ...	—	—	—	—	—	—	—	—	—
(undefined) ...	11	—	11	6	—	6	—	—	—
(blackwater) ...	—	—	—	—	—	—	—	—	—

APPENDIX I.—(Continued)

DISEASE	OUT-PATIENTS			IN-PATIENTS			DEATHS		
	M	F	Total	M	F	Total	M	F	Total
Venereal disease —Syphilis :—									
(a) Primary & Secondary ...	68	50	118	6	16	21	—	—	—
(b) Tertiary ...	241	244	485	16	6	22	2	—	2
(c) Congenital ...	14	7	21	3	—	3	2	—	2
Gonorrhoea :—									
(a) Acute ...	332	92	424	70	39	109	—	—	—
(b) Chronic ...	63	24	87	42	9	51	—	—	—
Influenza :—									
(a) with respiratory complications....	11	5	16	4	1	5	—	—	—
(b) without respiratory complications ...	14	12	26	4	7	11	—	—	—
Measles ...	87	108	195	49	63	112	—	—	—
Chicken Pox ...	4	2	6	—	2	2	—	—	—
Acute polio-myelitis ...	—	—	—	—	—	—	—	—	—
Ankylostomiasis ...	72	62	135	28	7	35	—	—	—
Other Helminthic diseases ...	345	393	738	69	78	147	4	2	6
Filiarasis ...	3	2	5	2	—	2	—	—	—
Abscess of the Liver ...	12	—	12	21	—	21	3	—	3
Other diseases of the Liver (Hepatitis) ...	313	117	430	74	30	104	—	—	—

APPENDIX I.—(Continued).

DISEASE	OUT-PATIENTS			IN-PATIENTS			DEATHS		
	M	F	Total	M	F	Total	M	F	Total
Cancer and other tumours :—									
(a) Malignant ...	2	7	9	5	6	11	1	1	2
(b) Non-Malignant ...	9	10	19	11	25	36	—	—	—
(c) Unspecified ...	8	15	23	1	—	1	—	—	—
Rhumatic conditions ...	666	674	1,340	20	25	45	—	1	1
Diabetes mellitus ...	3	9	12	3	9	12	—	1	1
Diseases of the Endocrine glands ...	4	3	7	—	7	7	—	—	—
Scurvy ...	—	—	—	—	—	—	—	—	—
Beri-beri ...	—	—	—	1	—	1	—	—	—
Malnutrition and other Vitamin deficiencies ...	44	86	130	6	19	25	1	3	4
Other diseases of the blood and blood forming organs ...	263	536	799	11	9	20	1	2	3
Acute and chronic poisoning :—									
(a) Alcoholic ...	2	2	4	2	1	3	1	—	1
(b) Other ...	—	1	1	3	1	4	1	1	2
Mental diseases									
Trachoma ...	—	3	3	—	—	—	—	—	—
Other eye diseases ...	115	119	234	25	22	47	—	—	—
Diseases of the ear and mastoid sinus ...	153	176	239	13	13	26	—	—	—
Other diseases of the nervous system ...	239	439	678	16	11	27	5	3	8

APPENDIX I.—(Continued).

DISEASE	OUT-PATIENTS			IN-PATIENTS			DEATHS		
	M	F	Total	M	F	Total	M	F	Total
Heart diseases ...	60	96	156	19	8	27	7	1	8
Other diseases of the circulatory system ...	31	46	77	21	14	35	3	—	3
Bronchitis :—									
(a) acute ...	395	357	752	22	36	58	—	—	—
(b) Chronic ...	313	289	602	8	8	16	—	—	—
Pneumonia :—									
(a) broncho — ...	31	14	45	34	20	54	2	3	5
(b) lobar — ...	12	7	19	26	11	37	2	1	3
(c) Unspecified ...	16	11	27	10	9	19	1	1	2
Other diseases of the respiratory system ...	514	562	1,076	110	122	232	2	1	3
Nephritis :—									
(a) Acute ...	3	2	5	3	1	4	1	—	1
(b) Chronic ...	1	—	1	—	—	—	—	—	—
Other non-V. D. of the genito urinary system ...	280	569	849	67	121	188	1	1	1
Abortions ...	—	47	47	—	35	35	—	—	—
Toxaemias of pregnancy ...	—	1	1	—	5	5	—	—	—
Other conditions of the puerperal state ...	—	—	—	—	3	3	—	—	—
Ulcers (unspecified) ...	106	55	161	5	6	6	—	—	—
Other skin diseases ...	953	555	1,508	180	107	107	—	—	—
Diseases of the bones etc., ...	111	54	165	16	7	7	—	—	—
Congenital Malformation ...	3	1	4	3	—	—	—	—	—

APPENDIX I.—(Continued).

Disease	Out-patients			In-patients			Deaths		
	M	F	Total	M	F	Total	M	F	Total
Disease of early infancy :— ...									
(a) Congenital debility ...	3	3	6	2	2	4	2	1	3
(b) premature births ...	—	—	—	—	—	—	—	—	—
(c) Injury at birth ...	—	—	—	—	—	—	—	—	—
(d) Other Conditions ...	21	16	37	3	7	10	—	—	—
Senility ...	48	112	160	8	11	19	4	5	9
External causes :—									
(a) homicide ...	—	—	—	—	—	—	—	—	—
(b) suicide ...	—	—	—	—	—	—	—	—	—
(c) Other causes ...	110	84	194	126	54	180	2	—	2
Ill defined causes ...	212	276	488	9	16	25	—	—	—
Other causes ...	914	1,287	2,201	124	134	258	7	1	8

APPENDIX II.

Measles Epidemic, 1949.

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
Cases Confirmed ...	19	72	106	53	24	5	1	7	6	7	9	1	310
Cases unconfirmed...	—	86	122	4	2	—	—	—	—	—	—	—	243
Admissions to Hospital ...	13	24	29	22	14	2	—	3	2	1	2	1	113
Deaths ...	—	—	1	3	—	—	—	—	—	—	—	—	3

APPENDIX III.

Monthly distribution of diarrhoeal disease in the Colony.

		Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Diarrhoea ...	O. P.	94	90	110	218	165	131	97	63	49	62	116	122
Enteritis ...	I. P.	14	4	9	19	58	32	7	3	9	1	12	2
	D.	0	0	0	2	0	3	0	1	2	0	3	0
Bacillary ...	O. P.	1	2	2	3	0	1	0	3	2	0	0	0
Dysentery ...	I. P.	0	7	0	12	3	0	1	0	0	0	0	0
	D.	6	0	0	4	2	0	0	0	0	0	0	0
Amoebic ...	O. P.	29	33	56	52	37	21	26	19	9	17	38	28
Dysentery ...	I. P.	10	9	8	11	17	14	16	10	11	9	7	5
	D.	0	0	2	0	1	2	1	1	0	0	0	0
Other Dysentery ...	O. P.	14	16	6	14	31	18	12	11	2	2	8	8
(Giardia, Bal. Coli)...	I. P.	5	2	7	11	13	11	6	4	1	4	2	2
	D.	0	0	1	0	1	0	0	0	0	0	0	0
Unspecified ...	O. P.	0	1	6	3	0	1	5	4	4	1	0	2
Dysentery ...	I. P.	5	3	0	0	0	0	0	1	0	0	0	1
	D.	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX IV.

Monthly distribution of Bronchitis and Pneunomia.

— Whole Colony —

		January	February	March	April	May	June	July	August	September	October	November	December
Bronchitis	C. P.	174	148	125	80	73	75	153	137	114	77	107	91
acute and	I. P.	11	14	10	5	4	9	3	6	7	2	1	0
Chronic	D.	0	0	0	0	0	0	0	0	0	2	0	0
Pneumonia	C. P.	6	14	9	10	6	4	14	8	5	1	10	4
all Forms	I. P.	10	10	11	5	7	7	11	10	17	0	9	13
	D.	3	1	0	2	1	1	0	1	0	0	0	1

APPENDIX V.

Heights / Weights / Survey.

	BOYS							GIRLS						
		WEIGHT			HEIGHT				WEIGHT			HEIGHT		
AGE GROUP	Number of observation	Mean Weight	Standard Deviation	Inter-Group Increase	Mean Height	Standard Deviation	Inter-Group Increase	Number of observation	Mean Weight	Standard Deviation	Inter-Group Increase	Mean Height	Standard Deviation	Inter-Group Increase
		LBS		LBS					LBS		LBS			
5 — 6	19	38.75	3.75		42.50″	1.50		22	40.00	3.75		43.75	1.50	
				3.00			1.50″				1.50			0.50
6 — 7	118	41.75	4.75		44.00″	2.00		99	41.50	5.00		44.25	2.25	
				3.50			2.00″				3.50			1.50
7 — 8	217	45.25	5.75		46.00″	2.00		201	44.00	5.25		45.75	2.50	
				3.75			2.00″				4.25			1.75
8 — 9	215	49.00	6.00		48.00″	2.25		232	48.25	5.75		47.50	2.50	
				4.75			1.75″				5.50			2.50
9 — 10	246	53.75	7.00		49.75″	2.75		260	53.75	7.00		50.00	2.75	
				5.00			1.75″				4.50			1.50
10 — 11	230	58.75	7.50		51.50″	2.50		268	58.25	8.00		51.50	2.50	
				4.00			1.75″				6.50			1.75
11 — 12	197	62.75	9.75		53.25″	2.75		238	64.75	11.00		53.25	2.50	
				5.25			1.25″				8.75			2.50
12 — 13	192	68.00	9.50		54.50″	2.75		222	73.50	13.25		55.75	3.25	
				7.00			1.25″				8.25			1.75
13 — 14	154	75.00	12.25		55.75″	3.00		160	81.75	15.50		57.50	3.50	
				6.50			2.00″				8.25			2.00
14 — 15	118	81.50	15.00		57.75″	4.00		93	90.00	11.50		59.50	2.75	
				10.25			3.25″				4.00			1.00
15 — 16	58	91.75	19.50		61.00″	4.00		49	94.00	17.75		60.50	2.75	
				14.00			2.25″				14.50			2.50
16 — 17	20	105.75	14.50		63.25″	3.75		26	108.50	7.25		63.00	2.50	
				10.50			3.00″				3.50			—
17 — 18	11	116.24	15.50		66.25″	2.75		16	112.00	13.75		62.50	2.50	
	1,799							1,886						

Note:— All measurements are expressed to the nearest working unit i.e. 4 ozs. or $\frac{1}{4}$″

Total Observations = 3,685.

APPENDIX VI.

Work done at the various Government Institutions.

	First Attendances	Repeat Cases	Dressings and Minor Treatment	Admissions to Hospital	Major Operations	Minor Operations	Deaths
Victoria Hospital	10,249	16,623	2,685	2,986	179	1,160	109
Grand'Anse Mahé	842	730	—	—	—	—	—
Anse Royale	2,603	2,884	429	98	—	—	2
Bel Ombre	55	23	5	—	—	—	—
Takamaka	103	114	—	—	—	—	—
Fiennes Institute	65	73	—	—	—	—	—
Grand'Anse Praslin	702	540	946	—	—	—	—
Baie St. Anne Praslin	829	411	916	307	6	90	10
La Digue	911	956	750	121	—	54	—
Curieuse Leper Settlement	—	—	320	9	—	—	2
Mental Hospital Anse Royale	—	—	—	4	—	—	7

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE
LIBRARY
-9 MAR 1961